#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-000181 Address: 333 Burma Road **Date Inspected:** 23-May-2007

City: Oakland, CA 94607

OSM Arrival Time: 800 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Huang Wei No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes N/A **Delayed / Cancelled:** No

34-0006 **Bridge No: Component:** N/A

## **Summary of Items Observed:**

The CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present for the welding qualification testing pertinent for the welding qualification record (PQR) HP200776-1 scheduled for this project. ZPMC welder Zhu Hai Ping was observed by the QA Inspector performing welding operations following the preliminary welding procedure specification PWPS-B-T-3211 for the PQR identified as HP200776-1. Base metal was designated as A-709M-HPS-485W/Z25. ZPMC followed AWS 5.13 Production procedure WPS using shielded metal arc welding (SMAW) process in the flat (1G) position with the 4.8 mm diameter Excalibur E9018M-H4R electrode. The QA Inspector verified amperages, voltages, travel speeds, preheat and heat interpass temperatures. The QA inspectors recorded welding parameters for a total of 11 passes. The QA inspector observed that the welding parameters taken by ZPMC QA representative Huang Wei and ABF representative Song Wemin appeared to be accurate and in accordance with the contract documents. The PQR was still in progress at the end of the shift. The CALTRANS Quality Assurance (QA) Inspector, Alfredo Acuna was present to observe quality control functions related to welding, testing and fabrication of the mock-ups at the Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island for the San Francisco Oakland Bay Self Anchored Suspension Bridge. The QA inspector observed approximately fifty three(53) ZPMC shop personnel performing fabrication activities on elevation 77.000 (diaphragm 3B), elevation 89.000 (diaphragm 2C), elevation 114.000 (tower splice) at the ZPMC OBG workshop. The QA inspector observed thirteen(13) ZPMC shop personnel performing activities associated with the fabrication and procedure qualification testing for the close rib at the Gantry welding machine using the gas metal arc welding and the Submerged arc welding process. The QA inspector observed ZPMC, Bureau Veritas with ABF inspectors performing observations and inspections. The digital photos below show ZPMC performing fabrication activities before trial associated with the close ribs.

# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

The QA inspector did not have any significant conversations on this date.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

Inspected By:	Acuna, Alfredo	Quality Assurance Inspector
Reviewed By:	McClary,David	QA Reviewer